

## Participatory and Institutional Approaches to Agricultural Climate Services Development: A South and South East Asia Regional Technical and Learning exchange

**Golden Tulip Hotel, in Dhaka, Bangladesh**  
September 17-19, 2017

### **Background:**

The World Meteorological Organization (WMO) and the Global Framework for Climate Services (GFCS) define climate services as providing "... climate information in a way that assists decision making by individuals and organizations. Such services require appropriate engagement along with an effective access mechanism and must respond to user needs. Such services involve high-quality data from national and international databases on temperature, rainfall, wind, soil moisture and ocean conditions, as well as maps, risk and vulnerability analyses, assessments, and long-term projections and scenarios. Depending on the user's needs, these data and information products may be combined with non-meteorological data, such as agricultural production, health trends, population distributions in high-risk areas, road and infrastructure maps for the delivery of goods, and other socio-economic variables."

Agricultural climate services focus on producing relevant climate information and assuring that farmers and other stakeholders can access information so they can make better-informed decisions with respect to how to manage livestock, and when to sow crops, what crops to plant, and how to manage and harvest these crops so that climate related risks are reduced. Pest and disease forecasts, as well as weather-based crop insurance programs, are among the fastest growing agricultural climate services sectors to date. But regardless of these 'sectors', climate information must be conveyed in ways that are decision-relevant. This requires a rethinking of how both climate and agricultural extension advisories are produced and conveyed, ideally with emphasis on involving farming communities in the participatory development of appropriate climate information and extension messaging. Tools and media formats developed in collaboration with partners can assist in increasing use of climate information. The ultimate goal is to empower farmers, extension agents, agricultural development organizations, and policy makers so they are better equipped to respond to climatic variability to mitigate production risks. Effective agricultural climate services also require an ability to communicate across scientific disciplines, and establish the requisite instructional arrangements and technical capacities to facilitate the exchange of relevant climate data to and from farming communities.

### **Objectives and outcomes:**

This three day workshop will be highly interactive and offers new opportunities to bring leaders working on participatory approaches and instructional arrangements for the development of relevant agricultural climate services from across South and South East Asia. Our objective is to exchange ideas, stories, strategy, and to network to support the growth of farmer-focused and relevant agricultural climate services in the region. By the conclusion of the workshop, participants should:

- Have a broad overview of South and South East regional agricultural climate services programs;
- Become familiar with participatory approaches and methods in agricultural climate services, and able to enact or improve them in their own country contexts;
- Develop an increased understanding of how to identify and leverage 'decision points' in the agricultural calendar during which climate information and advisories can most benefit farmers;
- Be able to understand and verbalize the need for appropriate instructional arrangements to facilitate the flow of relevant climate information and advisories to farmers, and to supply feedback to meteorological, extension, development, and policy oriented organizations;

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Strategic alignment

- Have an improved sense of information communication and visualization skills required to develop relevant climate information and advisories for smallholder farming communities in South and South East Asia

Another important goal of the workshop is to review South and South East Asian regional agricultural climate services activities – with an emphasis on participatory development and institutional arrangements to facilitate the flow of relevant climate advisories to farmers with appropriate feedback to scientists, extension agencies, and policy makers. To this end, we also plan to develop an outline for a **scientific review paper on the subject of participatory climate services for agricultural decision making in South and South East Asia**, with workshop participants as co-authors of the paper, which will be submitted to a peer-reviewed journal.

#### Participating organizations:

Participants from ten countries will take part in this technical exchange, with eight South or South East Asian countries will be represented (Bangladesh, India, Indonesia, Myanmar, Nepal, Philippines, Sri Lanka, Vietnam). In addition, participants from the United States and United Kingdom will take part and will share cross-regional experiences with participatory agricultural climate services projects in sub-Saharan Africa. The following organizations are expected to take part in the technical exchange:

- **Bangladesh:** The Bangladesh Meteorological Department, Department of Agricultural Extension, Bangladesh Agricultural Research Council, Bangladesh Agricultural Research Institute, the Bangladesh Rice Research Institute, Practical Action, International Centre for Climate Change and Development, Bangladesh Centre for Advance Studies, Bangladesh Rural Advancement Committee, Advanced Chemical Industries, CIMMYT, the International Rice Research Institute (IRRI), Asian Development Bank, Center for Geographic Information Services, and the Krishi Gobeshona Foundation, and USAID/Bangladesh, FAO/Bangladesh, among others.
- **India:** Agricultural Meteorology Division and AgroMet Services (India Meteorological Department), Central Agricultural University (Pusa, Bihar)
- **Indonesia:** Center for Applied Climate Information Services (Indonesia Agency for Meteorology Climatology and Geophysics), Forest and Climate Change under ASEAN (Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ) GmbH)
- **Myanmar:** The Department of Meteorology and Hydrology (Ministry of Transport and Communication), The Department of Horticulture and Agricultural Biotechnology (Yezin Agricultural University), International Cooperation Division (Ministry of Agriculture, Livestock and Irrigation)
- **Nepal:** The Nepal Agricultural Research Council, the International Center for Integrated Mountain Development (ICIMOD, representing climate services projects in Nepal, Pakistan, and Bangladesh, SMILES-Nepal
- **Philippines:** Rice Watch Action Network, Inc.
- **Sri Lanka:** The International Water Management Institute (representing Sri Lanka, and projects in India and Bangladesh)
- **Vietnam:** The World Agroforestry Center (ICRAF), and the International Center for Tropical Agriculture (CIAT), CARE International
- **United Kingdom:** The School of Agriculture, Policy, and Development (University of Reading)

- **United States:** International Research Institute for Climate and Society (IRI, the Earth Institute, Columbia University) and Climate Information Services.

### Sponsorship:

This event is being sponsored by the [U.S. Agency for International Development \(USAID\)](#) on behalf of the [Climate Services for Resilient Development \(CSRD\)](#) and is organized by the [International Maize and Wheat Improvement Center \(CIMMYT\)](#) alongside South Asian CSRD partners. CSRD which is an international public-private partnership dedicated to promoting and enabling climate services that increase resilience to the impacts of climate variability and climate change, and that positively change behavior and affect policy in developing countries. CSRD is committed to delivering climate services—including the production, translation, transfer, and use of climate information—purposefully designed to enable policymakers and decision-makers to address significant problems and create solutions. Toward this end, CSRD promotes services that are user-centric and collaborative and effectively harness the power of information, technology, and innovation from around the world. CSRD's founding partners are the government of the United States (through USAID, OSTP, and NOAA), the government of the United Kingdom (through DFID and the UK Met Office), the American Red Cross, the Skoll Global Threats Fund, Esri, Google, the Inter-American Development Bank, and the Asian Development Bank. Focusing on South Asia, CSRD implementing partners include the Bangladesh Meteorological Department (BMD), the Bangladesh Department of Agricultural Extension (DAE), the Bangladesh Agricultural Research Council (BARC), CIMMYT, ICIIMOD, the International Research Institute for Climate and Society (IRI), The University of Passo Fundo, and the University of Rhode Island.

CSRD is also aligned with [the CGIAR Research Program on Climate Change, Agriculture and Food Security \(CCAFS\)](#). CCAFS seeks to ensure a food-secure world in the face of a variable and changing climate, through a strategic research-for-development collaboration. It brings together agricultural, climate, environmental and social sciences to identify and address the most important interactions, synergies and trade-offs between climate change and agriculture.

### AGENDA AND ACTIVITIES

A preliminary agenda (which is subject to changes) for each of the three-day event can be found below

#### DAY 1: SUNDAY, SEPTEMBER 17, 2017

TIME	ACTIVITY
8:45-9:00	Arrival and registration
<i>Inaugural ceremony</i>	
9:00-9:10	Welcome and introductions, facilitated by Timothy J. Krupnik, CIMMYT and CSRD in South Asia Project Leader
9:10-9:20	Inaugural speech by Mr. Shamsuddin Ahmed, Director, Bangladesh Meteorological Department
9:20-9:30	Inaugural speech by Stephan E. Zebiak, President, Climate Information Services and CSRD global coordinator
9:30-9:40	Inaugural speech by Md. Golam Maruf, Director, Bangladesh Department of Agricultural Extension
9:40 -9:50	Inaugural speech by James Hansen, Senior Research Scientist and CCAFS Flagship 4 Leader: Climate Services and Safety Nets, IRI, The Earth Institute, Columbia University
9:50-9:55	Inaugural speech by David Westerling, the Acting Economic Growth Office Director and Feed the Future Team Leader, USAID

9:55-10:15	Presentation and discussion on workshop objectives and agenda, Timothy J. Krupnik (CIMMYT)
10:15-10:25	Group photograph
<b>Tea break</b>	
10:15-10:30	Tea and refreshments served
<b>Detailed welcome and introductions</b>	
10:30-11:00	Ice breaking exercises for core participants, Timothy J. Krupnik (CIMMYT)
<b>Keynote presentations: sharing of stories and ideas on participatory agricultural climate services from across the regions</b> (15 minute presentations for each keynote speaker(s))	
11:00-11:15	Developing climate services and approaches to support farmer decision making: Insights from Africa with relevance for South and South East Asia. Peter Dorward, The School of Agriculture, Policy, and Development (University of Reading).
11:15-11:30	Communicating weather and climate information with farmers: Lessons from CCAFS's global experiences. James Hansen, Senior Research Scientist and CCAFS Flagship 4 Leader: Climate Services and Safety Nets, and Ms. Mélody Braun, Research Staff Associate, Financial Instruments Sector Team (IRI)
11:30-11:45	Agricultural climate services and farmer participatory extension in India. N. Chattopadhyay and KK Singh. Agricultural Meteorology Division and AgroMet Services (India Meteorological Department)
11:45-12:00	Farmer climate field schools in Indonesia: Strengths and weaknesses. Indra Gustari. Center for Applied Climate Information Services (Indonesia Agency for Meteorology Climatology and Geophysics).
12:00-12:15	Climate services and farmer participatory extension in Nepal. Deepak Bhandari, Agri-Environment Division, Nepal Agricultural Research Council.
12:15-12:30	Talking toolkits, PSP, and methods for communicating agricultural climate services and adaptation in Vietnam. Elisabeth Simelton and Mrs. Tam Thi Le (World Agroforestry Center) and Mr. Le Xuan Hieu (CARE)
12:30-1:00	Speaker question and answers (talk show style Q&A, Facilitated by Stephan E. Zebiak)
<b>Lunch</b>	
1:00-2:00	Buffet lunch served
<b>Keynote presentations continued</b> (Tea to be served on buffet basis)	
2:00-2:15	Overview of agricultural climate services in the ASEAN Climate Resilience Network. Imelda Bacudo. Senior Advisor and Deputy Head of Project Forest and Climate Change under ASEAN (GIZ)
2:15-2:30	Farmer participation and communication in climate services and Index-based flood insurance initiatives in India, Bangladesh, and Sri Lanka. Giriraj Amarnath (IWMI)
2:30-2:45	Agricultural call centers and climate advisories in Myanmar. Moe San. International Cooperation Division (ASEAN), Ministry of Agriculture, Livestock and Irrigation
2:45-3:00	Experiences with ICT to communicate climate information to Farmers in Nepal. Ishwor Malla. Deputy Head, ICT for Agriculture. SMILES - Nepal
3:00-3:15	Approaches to developing better agricultural climate services in the Philippines. Hazel Tanchuling, Executive Director (Rice Watch Action Network Inc.)
3:15-3:30	Farmer decision making structures in Bangladesh: Preliminary and planned work in the CSRD South Asia and the Agro-Meteorological Information Systems Development Project. Timothy J. Krupnik (CIMMYT) and Aziz Mazharul (DAE).

3:30-4:45	Panel discussion on all presentations so far: What methods in participatory climate services implementation have we learned about across these programs (Panel Q&A, facilitated by Peter Dorward, Timothy J. Krupnik, and Stephan E. Zebiak)
4:45 – 5:30	Further discussion and review of Day 1, plans and expectations for Day 2. Discussion on producing a scoping paper on participatory agricultural climate services in South and South East Asia (Timothy J. Krupnik)

**DAY 2: MONDAY, SEPTEMBER 18, 2017**

TIME	ACTIVITY
9:00-9:30	<i>Presentation and discussion:</i> Products and processes for making seasonal climate forecasts useful for farmer decision-making: experiences in Africa with relevance to South and South East Asia. James Hansen, Senior Research Scientist and CCAFS Flagship 4 Leader: Climate Services and Safety Nets, IRI, The Earth Institute, Columbia University
9:30-10:15	<i>Presentation and discussion:</i> Bringing participatory climate services to South and South East Asia: How could the Participatory Integrated Climate Services for Agriculture (PICSA) approach be applied? Presented by Peter Dorward
10:15-10:45	<i>Activity and discussion:</i> What do metrological and extension services have to offer farmers, and what do farmers need and want? A cross-country activity study. Facilitated by Timothy J. Krupnik
<b><i>Tea break</i></b>	
10:45-11:00	Tea and refreshments served
11:00-12:00	<i>Practical activity with real data and discussion:</i> Climate perceptions vs. realities in contrasting locations in South and/or South East Asia: What are the implications for effective agricultural climate services and communications? Data visitation, interpretation, and fishbowl exercise led by Peter Dorward
12:00-1:00	<i>Activity and discussion:</i> Identifying and planning for change: how can participatory tools support farmer decision making? Participatory exercises including enterprise budgeting led by Peter Dorward
<b><i>Lunch</i></b>	
1:00-2:00	Buffet lunch served
2:00-2:30	<i>Presentation and discussion:</i> Potentials and Pitfalls for ICTs for 'last mile' agricultural climate services extension (Facilitator to be determined)
2:30-3:30	<i>Activity and discussion:</i> Scoping climate services in South and South East Asia: A participatory approach to cataloguing agricultural climate advisor services in the region Facilitated by Timothy J. Krupnik
<b><i>Tea break</i></b>	
3:30-3:45	Tea and refreshments served
3:45-4:45	<i>Participant presentations:</i> Scoping climate services in South and South East Asia continued Facilitated by Timothy J. Krupnik
4:45-5:45	Open discussion on producing a scoping paper on participatory agricultural climate services in South and South East Asia. Facilitated by the CSRD team
5:45-6:00	Further discussion and review of Day 2, plans and expectations for Day 3.

**DAY 3: TUESDAY, SEPTEMBER 19, 2017**

TIME	ACTIVITY
<b>Special session on financial instruments for agricultural climate services</b>	
9:00-9:20	Bridging the 'space' between remote sensing science and local communities for better design of flood index insurance. Giriraj Amarnath (IWMI)
9:20-9:40	<i>Presentation and discussion:</i> Financial instruments to mitigate climate risks: Global examples of how appropriateness and farmer participation be increased. Mélody Braun, Research Staff Associate, Financial Instruments Sector Team (IRI)
9:40-10:00	<i>Presentation and discussion:</i> Mind the gender gap in crop insurance! Farmers' gendered preferences and climate change skepticism in coastal Bangladesh. Timothy J. Krupnik and Fahmida Khanam (CIMMYT)
10:00-10:20	Speaker question and answers (talk show style Q&A, Facilitator TBD)
<b>Tea break</b>	
10:20-10:45	Tea and refreshments served
10:45-11:45	<i>Activity and discussion:</i> Round table sharing of climate communication and visitation tools and methods: What works and what needs to be improved? (Facilitator TBD)
11:45-1:00	<i>Activity and discussion:</i> Institutional arrangements to improve the flow of agriculturally relevant climate information to farmers in South and South East Asia: A participatory mapping exercise. Facilitated by Timothy J. Krupnik (CIMMYT)
<b>Lunch</b>	
1:00-2:00	Buffet lunch served
<b>Reflection on lessons learned and next steps forward</b>	
2:00-4:00	Participant presentations: What have you learned and what will you take home to put into practice? Facilitated by Steve E. Zebiak and Peter Dorward
4:00-5:15	Open discussion on producing a scoping paper on participatory agricultural climate services in South and South East Asia. Facilitated by the CSRD team
5:15-5:45	Closing ceremony